

Internation Spplication No

			PCT/US 03	/32467
A. CLASSI IPC 7	FICATION OF SUBJECT MATTER E04B2/86			
According to	o International Patent Classification (IPC) or to both national classifica	ation and IPC		
	SEARCHED			
Minimum do	commentation searched (classification system followed by classification $E02D E04B$	on symbols)		
ł				
Documenta	tion searched other than minimum documentation to the extent that s	uch documents are Incl	uded in the fields se	earched
	lata base consulted during the international search (name of data base	se and, where practical	l, search terms used	
EPO-In	ternal			
C. DOCUM	ENTS CONSIDERED TO BE RELEVANT			
Category °	Citation of document, with indication, where appropriate, of the rele	evant passages		Relevant to claim No.
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	US F 740 CAO A (DICCONF EDANGESCO			1 5 0 10
X	US 5 740 648 A (PICCONE FRANCESCO 21 April 1998 (1998-04-21)	"		1-5,8-10
	abstract; figures 2,5,6,11			
х	US 6 219 984 B1 (PICCONE FRANCESO	1-5,8-10		
	24 April 2001 (2001-04-24) abstract; figures 1,3-5,7,9			
	column 4, line 50 - column 5, lir	ne 9		
x	BE 400 252 A (MANS P)			1-3,5-7
	31 January 1934 (1934-01-31)			,
	figures 3,4			
Α	US 5 216 863 A (PETTERSEN DAG ET 8 June 1993 (1993-06-08)	(AL)		1
	cited in the application			
	abstract; figure 10			
	-	-/		
X Furt	ther documents are listed in the continuation of box C.	χ Patent family	members are listed	in annex.
° Special ca	ategories of cited documents:	"T" later document pu	blished after the inte	ernational filing date
consi	ent defining the general state of the art which is not dered to be of particular relevance			eory underlying the
filing			ered novel or canno	t be considered to
which	ent which may throw doubts on priority claim(s) or Is cited to establish the publication date of another In or other special reason (as specified)	"Y" document of partic	cular relevance; the	ocument is taken alone claimed invention eventive step when the
	nent referring to an oral disclosure, use, exhibition or means	document is com ments, such com	bined with one or m	ore other such docu- us to a person skilled
P docum later t	ent published prior to the International filling date but than the priority date claimed	in the art. *&* document membe	r of the same patent	family
Date of the	actual completion of the international search	Date of mailing o	f the international se	arch report
2	23 February 2004	01/03/2	2004	
Name and	mailing address of the ISA	Authorized officer		
	European Patent Office, P.B. 5616 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl,		,	
	Tel. (+31-70) 340-2040, 1x. 31 651 epo ni, Fax: (+31-70) 340-3016	De Neef, K		



INTERMATIONAL SEARCH REPORT

Internation pplication No PCT/US 03/32467

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT					
Category Citation of document, with indication,where appropriate, of the relevant passages Relevant to claim No.					
	pussages		, total to cialli ito.		
A	US 5 706 620 A (DE ZEN VITTORIO) 13 January 1998 (1998-01-13) abstract; figures 1,8		9		

INTERMATIONAL SEARCH REPORT

information on patent family members

Internation Splication No
PCT/US 03/32467

			101703	03/ 3240/
Patent document cited in search report	Publication date		Patent family member(s)	Publication date
US 5740648 A	21-04-1998	AU	2378397 A	05-12-1997
		CA	2226497 A1	20-11-1997
		WO	9743496 A1	20-11-1997
US 6219984 B	1 24-04-2001	WO	9635845 A1	14-11-1996
		AT	223545 T	15-09-2002
		AU	694516 B2	23-07-1998
		AU	2404095 A	29-11-1996
		BR	9510578 A	05-01-1999
		CA	2215939 C	24-08-1999
		CA	2218600 A1	12-06-1998
·		CZ DE	9703554 A3 69528082 D1	17-06-1998
		DE	69528082 T2	10-10-2002 05-06-2003
		DK	830484 T3	06-01-2003
		EP	0830484 A1	25-03-1998
		ES	2182901 T3	16-03-2003
		HÜ	78118 A2	28-12-1999
		JP	11504999 T	11-05-1999
		KR	267183 B1	16-10-2000
		NO	975161 A	09-01-1998
		PL	323309 A1	16-03-1998
BE 400252 A		NONE		
US 5216863 A	08-06-1993	NO	892844 A ,B,	05-04-1990
·		ΑT	404273 B	27-10-1998
		ΑT	902889 A	15-02-1998
		AU	634169 B2	18-02-1993
		AU	4033089 A	05-03-1990
		BR	8907759 A	27-08-1991
		CA	1316366 C	20-04-1993
		CN	1040410 A ,B	14-03-1990
		CZ DD	8904732 A3	16-06-1993
		DE	284070 A5 3990874 C2	31-10-1990 08-11-2001
		DE	3990874 CZ 3990874 TO	18-07-1991
		DK	24691 A	13-02-1991
		EG	18782 A	28-02-1994
		ΕP	0433298 A1	26-06-1991
		ES	2014860 A6	16-07-1990
		GB	2239275 A ,B	26-06-1991
		GR	89100508 A ,B	22-08-1990
		HU	209170 B	28-03-1994
		HU	58388 A2	28-02-1992
		ΙE	65244 B1	04-10-1995
		JP	2899902 B2	02-06-1999
		JP	4500103 T	09-01-1992
		LT	978 A ,B	27-03-1995
		MT	1044 A	03-05-1991
		MX	163492 B	21-05-1992
		NL WO	8920757 T 9001595 A1	01-07-1991 22-02-1990
1		NZ	232767 A	28-04-1993
		PT	91376 A ,B	08-03-1990
		SE	501559 C2	13-03-1995
		SE	9100410 A	12-02-1991
		RU	2032803 C1	10-04-1995
·	· · · · · · · · · · · · · · · · · · ·			





Information on patent family members

Internation Delication No
PCT/US 03/32467

						
	atent document d in search report		Publication date		Patent family member(s)	Publication date
211	5216863	Α		TR	25620 A	03-05-1993
03	3210003	71		ΖA	8905835 A	27-03-1991
US	5706620	Α	13-01-1998	CA	2070079 A1	30-11-1993
ł				ΑT	187998 T	15-01-2000
				ΑU	671323 B2	22-08-1996
ļ				ΑU	5340294 A	30-12-1993
				BG	61404 B1	31-07-1997
i				BG	99218 A	29-09-1995
				BR	9306450 A	13-01-1998
ļ				WO	9324714 A1	09-12-1993
				CZ	9402928 A3	14-06-1995
				DE	69327398 D1	27-01-2000
				DE	69327398 T2	18-05-2000
				DK	648301 T3	15-05-2000
1				EP	0648301 A1	19-04-1995
				EP	0848116 A2	17-06-1998
				ES	2141766 T3	01-04-2000
				FΙ	945637 A	02-01-1995
				GB	2283257 A ,	B 03-05-1995
				GR	3032988 T3	31-07-2000
				HK	176696 A	27-09-1996
				HU	72579 A2	28-05-1996
				JP	7507363 T	10-08-1995
ľ				KR	257144 B1	15-05-2000
				MD	1330 F2	30-09-1999
				MX	9303229 A1	01-11-1993
				NO	944518 A	06-12-1994
				NZ	252970 A	22-08-1997
ļ				NZ	328162 A	25-02-1999
				OA	10218 A	07-10-1997
				RO	113751 B1	30 –10–199 8
				RU	2114958 C1	10-07-1998
				SK	145194 A3	08-11-1995
				TJ	232 B	24-11-1999